Identification of Campylobacter Infection in The Patients with Diarrhea by PCR

Ziba Vaise Malekshai*[1]; Mohammad Hassan Shirazi[2]; Zahra Pakbaz[2]; Sara Hajikhani[2]

1-MSc, Microbial Biotechnology, Iran

2-Department of Microbiology, Faculity of Health Science, Tehran Medical University, Tehran, Iran

zvmalekshahi@yahoo.com

Background & Objectives: Campylobacter is a gram-negative, spiral and microaerophilic bacteria that it is a common diarrhea in humans cause of acute disease. The aim of this study was to identification of campylobacter infection in the patients with diarrhea by PCR.

Methods: Stool samples from 117 patients with diarrhea were collected and dissolved in 500µl PBS and 100µl added to thioglycollate medium was incubated over night under microaerophilic environment at 42 ^{o}C. Then 100µl of samples were cultured in blood free campylobacter agar base medium and were incubated at 42^{o}C under microaerophilic conditions for 48h. *C.jejuni* and C.coli colonies were tested for biochemical characters, Gram staining, oxidase, cataalase and hippurate hydrolysis. DNA was extracted from pure bacterial cultures. The hipO and asp genes were used for identification of *C.jejuni* and *C.coli* respectively. Genes amplified by PCR.

Results: *C.jejuni* was isolated from stool samples of 9 patients (7.69%) by PCR and *C.coli* was isolated from stool samples of 4 patients by PCR (3.41%).

Conclusion: The findings suggest that PCR is a rapid diagnostic tool for detecting *C.jejuni* and *C.coli* infection in diarrhea patients.

Keywords: Campylobacter; Diarrhoeal Stools; PCR